

## **EUROPEAN PATENT OFFICE**

## Patent Abstracts of Japan

: 02251107 PUBLICATION NUMBER **PUBLICATION DATE** 08-10-90

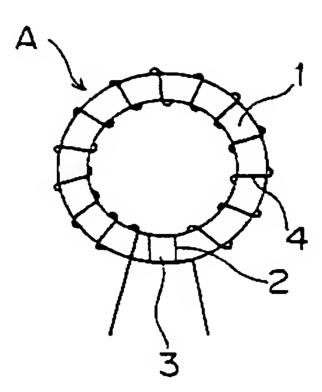
: 24-03-89 **APPLICATION DATE** APPLICATION NUMBER 01073616

APPLICANT: MURATA MFG CO LTD;

INVENTOR: HARADA TORU;

INT.CL. : H01F 27/24

: CHOKE COIL TITLE



ABSTRACT: PURPOSE: To obtain a choke coil characterized by high saturation magnetomotive force, less magnetic flux leakage and high permeability by inserting a spacer which is formed with a magnetic material whose permeability is lower than that of a core material and whose saturation magnetic flux density is higher than that of the core material into a gap.

> CONSTITUTION: In a choke coil A, a part of a toroidal core 1 which is formed with a high permeability magnetic material such as an amorphous material is cut out, and a gap 2 is provided. A spacer 3 comprising a magnetic material characterized by low permeability and high saturation magnetic flux density is inserted into the gas 2. A conductor wire 4 such as polyurethane coated copper wire and the like is wound around the core 1 many number of turns, and the coil is formed. When a large current is made to flow through the conductor wire 4 until the magnetic flux density in the core 1 is saturated, the choke coil having highly saturated magnetomotive force is obtained. As the gap 2, the magnetic material whose permeability is relatively low is used. In this way, the saturation magnetomotive force of the choke coil having the high permeability can be made high, and the leaking magnetic flux at the gap part is made less. Magnetic interference with surrounding electric parts can be suppressed.

COPYRIGHT: (C)1990,JPO&Japio

BEST AVAILABLE COPY